

WE CLAIM:

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1. A patient support device comprising a top surface, a bottom surface, two sides and at least two sidewalls; wherein the first side contains an integral indexing means and the second side is free of indexing means; and wherein the integral indexing means comprises at least one positioning feature.
  - 10 2. A patient support device of Claim 1 wherein the positioning feature is at least one selected from the group consisting of a notch, slat, indentation, cutout, scallop, groove, hole, protrusion, tab, pin and bar.
  3. A patient support device of Claim 1, wherein the top surface extends laterally beyond at least one sidewall, thereby forming a lip.
  - 15 4. A patient support device of Claim 1, wherein at least one sidewall is chamfered with respect to the top surface.
  5. A patient support device of Claim 1, wherein at least one sidewall is substantially perpendicular with respect to the top surface.
  6. A patient support device of Claim 1, further comprising at least one accessory device removably secured to at least one positioning feature.
  - 20 7. A patient support system comprising;
    - a) a patient support device comprising a top surface, a bottom surface, two sides and at least two sidewalls,
    - b) an integral indexing means comprising at least one positioning feature on a first side,
    - 25 c) a second side that is free of positioning features, and
    - d) at least one accessory device removably secured to at least one positioning feature.
  8. A patient support system of Claim 7, further comprising an accessory device adaptor, wherein the accessory device adaptor is mateably secured to the patient support device using at least one positioning feature on the first side and wherein the at least one accessory device is removably secured to the accessory device adaptor.
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9. A patient support system of Claim 8, wherein the accessory device adaptor provides an accurate and repeatable interface between the patient support device and the at least one accessory device.
10. A patient support system of Claim 7, wherein the accessory device can be precisely, securely and repeatably attached and removed from the patient support device.
11. A patient support system of Claim 7, for accurately and repeatably immobilizing a patient for diagnostic imaging or treatment.
12. A patient support system of Claim 7, wherein the second side comprises at least one positioning feature, and wherein the at least one positioning feature on the first side is asymmetrically spaced from the at least one positioning feature on the second side.
13. A patient support surface of Claim 12, wherein the positioning features on the sidewalls are independently selected from the group consisting of a notch, slat, indentation, cutout, scallop, groove, hole, protrusion, tab, pin and bar.
14. A patient support system of Claim 8, wherein the accessory device adaptor has two opposing ends and further comprises;
- a) an attachment feature on the first end of the adaptor for mateably joining the adaptor to the at least one positioning feature on the first side,
  - b) an element on the second end in contact with the second side of the patient support device, and
  - c) an attachment means for mateably joining and securing an accessory device to the accessory device adaptor.
15. A patient support system of Claim 14, wherein the attachment feature is at least one selected from the group consisting of a clamp, cam lock, interference fit clip, pin, post and bar.
16. A patient support system of Claim 15, wherein the attachment feature is incorporated into at least one positioning feature.
17. A patient support device comprising a top surface, a bottom surface, two sides, at least two sidewalls and an integral indexing means; wherein the integral indexing means comprises at least one positioning feature on the first side and at least one positioning feature on the second side and, wherein the at least one positioning feature on the first side is asymmetrically spaced from the at least one positioning feature on the second side.

18. A patient support device of Claim 17, wherein the positioning feature on each of the sides is at least one independently selected from the group consisting of a notch, slat, indentation, cutout, scallop, groove, hole, protrusion, tab, pin and bar.
- 5 19. A patient support device of Claim 17, wherein the top surface extends laterally beyond at least one sidewall, thereby forming a lip.
20. A patient support device of Claim 17, wherein at least a portion of one sidewall is substantially perpendicular with respect to the top surface.
21. A patient support device of Claim 17, wherein at least a portion of one  
10 sidewall of the patient support device is chamfered with respect to the top surface.
22. A patient support device of Claim 17, further comprising at least one accessory device removably secured to at least one positioning feature.
23. A patient support system of Claim 17; further comprising an accessory device  
15 adaptor, wherein the accessory device adaptor has two opposing ends and further comprises;
- a) an attachment feature on the first end of the adaptor for mateably joining the adaptor to the at least one positioning feature on the first side,
- b) an element on the second end in contact with the second side of the  
20 patient support device, and
- c) an attachment means for mateably joining and securing an accessory device to the accessory device adaptor.
24. A patient support system of Claim 23, wherein the attachment feature is at  
25 least one selected from the group consisting of a clamp, cam lock, interference fit clip, pin, post and bar.
25. A patient support device comprising a top surface, a bottom surface, two sides, at least two sidewalls, and an integral indexing means for accurate and repeatable patient positioning, wherein at least two sidewalls are chamfered.
- 30 26. A patient support device of Claim 25, wherein the integral indexing means comprises at least one selected from the group consisting of a notch, slat, indentation, cutout, scallop, groove, hole, protrusion, tab, pin and bar.
27. A patient support device of Claim 25, wherein the indexing means comprises at least one positioning feature on the first side and at least one positioning  
35 feature on the second side, wherein the at least one positioning feature on the

- first side is asymmetrically spaced from the at least one positioning feature on the second side.
28. A patient support device of 27, wherein the positioning features on the sides are independently selected from the group consisting of a notch, slot, indentation, cutout, scallop, groove, hole, protrusion, tab, pin and bar:
  29. A patient support device of Claim 25, wherein the top surface extends laterally beyond at least one sidewall, thereby forming a lip.
  30. A patient support device of Claim 29, wherein the integral indexing means is contained in the lip.
  31. A patient support device of Claim 26, wherein the integral indexing means is contained in the chamfered sidewalls.
  32. A patient support device of Claim 26, wherein the integral indexing means is contained in the chamfered sidewall but does not extend from the top surface to the bottom surface of the device.
  33. A patient support device of Claim 25, further comprising at least one accessory device removably secured to at least one positioning feature.
  34. A patient support system of Claim 25, further comprising an accessory device adaptor, wherein the accessory device adaptor has two opposing ends and further comprises;
    - a) an attachment feature on the first end of the adaptor for mateably joining the adaptor to the at least one positioning feature on the first side,
    - b) an element on the second end in contact with the second side of the patient support device, and
    - c) an attachment means for mateably joining and securing an accessory device to the accessory device adaptor.
  35. A patient support system of Claim 34, wherein the attachment feature is at least one selected from the group consisting of a clamp, cam lock, interference fit clip, pin, post and bar.
  36. A patient support device comprising a top surface, a bottom surface, two sides, at least two sidewalls and an integral indexing means, wherein the integral indexing means is incorporated into at least one surface of the device and wherein, the integral indexing means is at least one indexing groove.
  37. A patient support device of Claim 36, wherein the at least one indexing groove reaches from the first side to the second side.

38. A patient support device of Claim 37, wherein the integral indexing means are multiple indexing grooves and the indexing grooves are placed along the length of the patient support device at defined intervals.
39. A patient support device of Claim 36, further comprising at least one transverse groove on at least one surface of the support device and the transverse groove runs lengthwise along the support device.
40. A patient support device of Claim 39, wherein the at least one transverse groove is located on the opposite surface from the at least one indexing groove.
41. A patient support device of Claim 36, wherein the top surface of the support device extends laterally beyond at least one sidewall, thereby forming a lip.
42. A patient support device of Claim 36, wherein at least one sidewall of the support device is chamfered with respect to the top surface.
43. A patient support device of Claim 36, further comprising at least one accessory device removably secured to at least one positioning feature.
44. A patient support system of Claim 36, further comprising an accessory device adaptor, wherein the accessory device adaptor is mateably secured to the patient support device using at least one indexing groove on at least one surface and wherein the at least one accessory device is removably secured to the accessory device adaptor.
45. A patient support system of Claim 44, wherein the accessory device adaptor has two opposing ends and a positioning feature and further comprises;
- a) an attachment feature for positioning the adaptor to the at least one indexing groove,
  - b) an element on at least one end in contact with a sidewall of the patient support device, and
  - c) an attachment means for mateably joining and securing an accessory device to the accessory device adaptor.
46. A patient support system of Claim 45, wherein the attachment feature is at least one selected from the group consisting of a clamp, cam lock, interference fit clip, pin, post and bar.